CLAIMS

What is claimed is:

1. A highly palatable ductile chewable veterinary composition comprising (A) an effective amount of one or more ingredients that are active against animal pests, pathogens or animal diseases; (B) meat flavoring; (C) partially gelatinized starch; (D) a softener; and (E) up to 9% water.

2. A chewable veterinary composition according to claim 1 wherein the animal disease comprises viral or bacterial infections, behavioral disorders, inflammatory diseases, and auto-immune diseases.

3. A chewable veterinary composition according to claim 1 comprising 20 to 30 % (w/w) of a natural meat flavoring.

4. A chewable veterinary composition according to claim 4 wherein the natural meat flavoring comprises 20 to 55 % (w/w) fat.

5. A chewable veterinary composition according to claim 1 comprising 25 to 70 % (w/w) of partially gelatinized starch.

6. A chewable veterinary composition according to claim 5 wherein the partially gelatinized starch comprises 12 to 17 % (w/w) of gelatinized starch.

7. A chewable veterinary composition according to claim 1 comprising 10 to 20 % (w/w) of a softener, based upon the weight of the partially gelatinized starch.

8. A chewable veterinary composition according to claim 7 wherein the softener is selected from the group consisting of glycerol, polyethylene glycol and polypropylene glycol.

9. A chewable veterinary composition according to claim 1 comprising 4 to 6 % (w/w) of water.

10. A chewable veterinary composition according to claim 1 wherein the animal pests are external animal parasites or internal animal parasites or both.

11. A chewable veterinary composition according to claim 1 comprising 1 to 10 % (w/w) of a sweetener.

12. A chewable veterinary composition according to claim 1 comprising 0 to 3.5 % (w/w) of an antioxidant.

13. A chewable veterinary composition according to claim 1 comprising 0 to 5 % (w/w) of a coloring agent.

14. A chewable veterinary composition according to claim 1 comprising 0 to 4% (w/w) of sodium chloride.

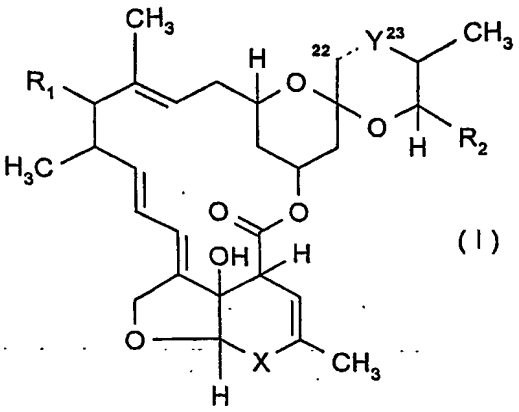
15. A chewable veterinary composition according to claim 1 comprising an parasiticidally effective amount of an ecto-parasiticide, an endo-parasiticide, an endectocide or of a combination of a parasiticide selected from the group consisting of an ecto-parasiticide, an endo-parasiticide and an endectocide.

16. A chewable veterinary composition according to claim 15 wherein the ecto-parasiticide is active against insects, members of the order Acarina or insects and members of the order Acarina.

17. A chewable veterinary composition according to claim 16 wherein the ecto-parasiticide is an insecticide which is either an insect adulticides or insect growth regulators.

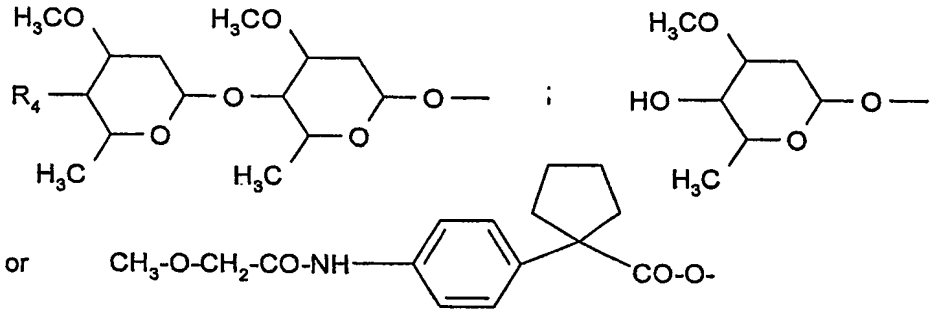
18. A chewable veterinary composition according to claim 15 comprising an parasiticidally effective amount of an endo-parasiticide or endecticide selected from the group consisting of macrocyclic lactones, benzimidazoles, pro-benzimidazoles , imidazothiazoles, tetrahydropyrimidines, organophosphates and piperazines.

19. A chewable veterinary composition according to claim 18 comprising an effective amount of a natural or chemically modified macrocyclic lactone of formula (I)



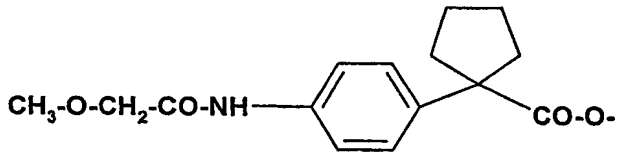
(I)

wherein X is -C(H)(OH)- ; -C(O)- ; or –C(=N-OH)-; Y is -C(H_2)- ; =C(H)- ; -C(H)(OH)- ; or –C(=N-OCH_3)-; R_1 is hydrogen or one of radicals



R_4 is hydroxyl, -NH-CH_3 or –NH-OCH_3; R_2 is hydrogen, –CH_3, -C_2H_5, -CH(CH_3)-CH_3, -CH(CH_3)-C_2H_5, -C(CH_3)=CH-CH(CH_3)$_2$ or cyclohexyl; and if the bond between atoms 22 and 23 represents a double bond the carbon atom in 23-position is unsubstituted so that Y is =C(H)- , or if is the bond between atoms 22 and 23 is a single bond the carbon atom in 23-position is unsubstituted or substituted by hydroxy or by the group =N-O-CH_3 so that Y is -C(H_2)-; -C(H)(OH)- ; or –C(=N-OCH_3)-; in free form or in the form of a physiologically acceptable salt.

20. A chewable veterinary composition according to claim 19 wherein the macrocyclic lactone is a compound of the formula (I) wherein X is -C(H)(OH)- ; Y is -C(H_2)-; R_1 is the radical



R_2 is $-CH_3$ or C_2H_5, and the bond between atoms 22 and 23 represents a single bond.

21. A chewable veterinary composition according to claim 19 wherein the macrocyclic lactone is selected from the group consisting of avermectins, milbemycins and derivatives thereof, in free form or in the form of a physiologically acceptable salt.

22. A chewable veterinary composition according to claim 21 wherein the macrocyclic lactone is selected from the group consisting of Ivermectin, Doramectin, Moxidectin, Selamectin, Emamectin, Eprinomectin, Milbemectin, Abamectin, Milbemycin oxime, Nemadectin, and a derivative thereof, in free form or in the form of a physiologically acceptable salt.

23. A chewable veterinary composition according to claim 18 comprising an effective amount of a macrocyclic lactone in combination with an effective amount of an anthelmintic selected from the group consisting of Albendazole, Clorsulon, Cydectin, Diethylcarbamazine, Febantel, Fenbendazole, Haloxon, Levamisole, Mebendazole, Morantel, Oxyclozanide, Oxibendazole, Oxfendazole, Oxfendazole, Oxamniquine, Pyrantel, Piperazine, Praziquantel, Thiabendazole, Tetramisole, Trichlorfon, Thiabendazole, and a derivative thereof.

24. A chewable veterinary composition according to claim 18 comprising additionally an effective amount of an insecticide, acaricide or an insecticide and an acaricide.

25. A chewable veterinary composition according to claim 1 comprising an effective amount of milbemycin oxime and praziquantel.

26. A chewable veterinary composition according to claim 1 comprising an effective amount of lufenuron, praziquantel and milbemycin oxime.

27. A chewable veterinary composition according to claim 1 comprising an effective amount of cyclosporin.

28. A chewable veterinary composition according to claim 1 comprising an effective amount of an antimicrobial selected from the group consisting of a penicillin, tetracycline, sulfonamide, cephalosporin, cephamycin, aminoglucosid, trimethoprim, dimetridazole,

erythromycin, framycetin, fruazolidone, pleuromutilin, streptomycin and a compound that is active against protozoa.

29. A chewable veterinary composition according to claim 1 comprising an effective amount of compound that is active against behavioral including separation worry or travel sickness of dogs and cats.

30. Process for the production of a highly palatable ductile chewable veterinary composition of claim 1, comprising (i) feeding the hopper of an extruder with an effective amount of one or more ingredients that are active against animal pests, pathogens or animal diseases; meat flavoring; partially gelatinized starch; a softener; and up to 9% (w/w) of water, (ii) cooling constantly down the mixture of active ingredients and carriers so that the temperature of the extrudate that leaves the tip of the extruder does during the whole extrusion process at no time exceed 40°C, (iii) pressing the extrudate through a die that is decisive for the shape of the chewable product, and (iv) cutting the extrudate that leaves the extruder into equal pieces.

31 Process according to claim 30 wherein the hopper of the extruder is fed continuously and simultaneously with pre-mixture (1) and pre-mixture (2), wherein pre-mixture (1) consist of a homogenized mixture of one or more active ingredients and partially gelatinized starch, and pre-mixture (2) consists of a homogenized mixture of meat flavoring, a softener and optionally of a carrier selected from the group consisting of a sweetener, softener, an antioxidant, a coloring agent and sodium chloride.

32. Process according to claim 30 wherein the extruder is cooled down below room temperature.

33. Method of controlling nonhuman animal pests or nonhuman animal pathogens or of curing or preventing nonhuman animals diseases comprising feeding an animal with a palatable ductile chewable veterinary composition according to claim 1.

34. Method according to claim 33, wherein the palatable ductile chewable veterinary composition consist of one chewable portion containing an effective amount of a compound

or mixture of compounds capable of controlling nonhuman animal pests or nonhuman animal pathogens or of curing or preventing nonhuman animals diseases.

35. Method according to claim 34 wherein the amount of active ingredient is adjusted to the bodyweight of the nonhuman animal that is in need of the treatment.

36. Use of (A) an effective amount of one or more ingredients that are active against animal pests, pathogens or animal diseases; (B) meat flavoring; (C) partially gelatinized starch; (D) a softener; (E) up to 9% water; and an active ingredient suitable for combating animal pests, pathogens or animal diseases for the preparation of a highly palatable ductile chewable veterinary composition.

37. Use according to claim 36 comprising 20 to 30 % (w/w) of a natural meat flavoring.

38. Use according to claim 37 wherein the natural meat flavoring comprises 20 to 55 % (w/w) fat.

39. Use according to claim 36 comprising 25 to 70 % (w/w) of partially gelatinized starch.

40. Use according to claim 39 wherein the partially gelatinized starch comprises 12 to 17 % (w/w) of gelatinized starch.

41 Use according to claim 26 comprising 10 to 20 % (w/w) of a softener, based upon the weight of the partially gelatinized starch.

42. Use according to claim 40 wherein the softener is selected from the group consisting of glycerol, polyethylene glycol and polypropylene glycol.

43. Use according to claim 36 comprising 3 to 7 % (w/w) of water.

44. Use according to claim 36 wherein the animal pests are external animal parasites or internal animal parasites or both.

45. Use according to claim 36 comprising 1 to 10 % (w/w) of a sweetener.

46. Use according to claim 36 comprising 0 to 3.5 % (w/w) of an antioxidant.

47. Use according to claim 36 comprising 0 to 5 % (w/w) of a coloring agent.

48. Use according to claim 36 comprising 0 to 4% (w/w) of sodium chloride.

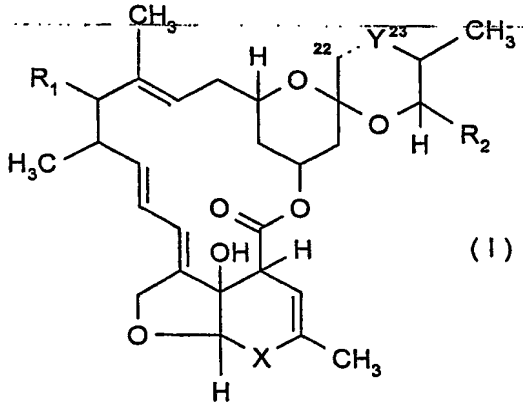
49. Use according to claim 36 comprising an parasiticidally effective amount of an ecto-parasiticide, an endo-parasiticide, an endectocide or of a combination of a parasiticide selected from the group consisting of an ecto-parasiticide, an endo-parasiticide and an endectocide.

50. Use according to claim 36 wherein the ecto-parasiticide is active against insects, members of the order Acarina or insects and members of the order Acarina.

51. Use according to claim 36 wherein the ecto-parasiticide is an insecticide which is either an insect adulticides or insect growth regulators.

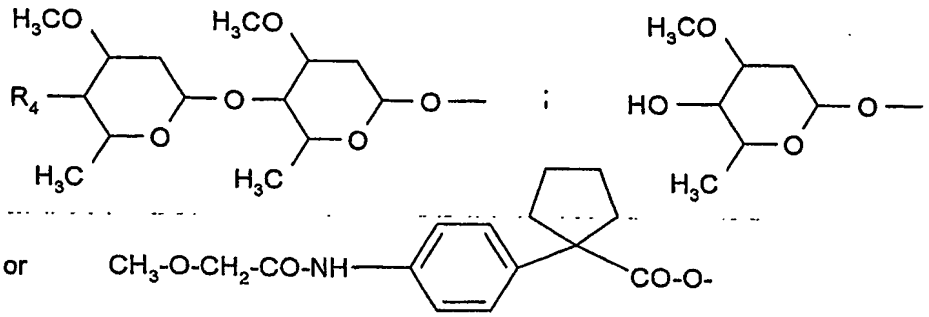
52. Use according to claim 36 comprising an parasiticidally effective amount of an endo-parasiticide or endecticide selected from the group consisting of macrocyclic lactones, benzimidazoles, pro-benzimidazoles , imidazothiazoles, tetrahydropyrimidines, organophosphates and piperazines.

53. Use according to claim 36 comprising an effective amount of a natural or chemically modified macrocyclic lactone of formula (I)



(I)

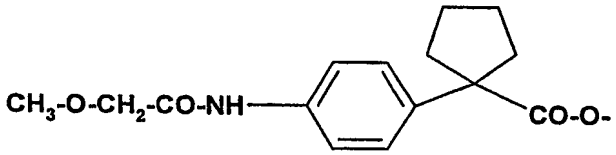
wherein X is -C(H)(OH)- ; -C(O)- ; or –C(=N-OH)-; Y is -$C(H_2)$- ; =C(H)- ; -C(H)(OH)- ; or –C(=N-OCH_3)-; R_1 is hydrogen or one of radicals



or

R_4 is hydroxyl, -NH-CH_3 or –NH-OCH_3; R_2 is hydrogen, –CH_3, -C_2H_5, -$CH(CH_3)$-CH_3, -$CH(CH_3)$-C_2H_5, -$C(CH_3)$=CH-$CH(CH_3)_2$ or cyclohexyl; and if the bond between atoms 22 and 23 represents a double bond the carbon atom in 23-position is unsubstituted so that Y is =C(H)- , or if is the bond between atoms 22 and 23 is a single bond the carbon atom in 23-position is unsubstituted or substituted by hydroxy or by the group =N-O-CH_3 so that Y is -$C(H_2)$-; -C(H)(OH)- ; or –C(=N-OCH_3)-; in free form or in the form of a physiologically acceptable salt.

54. Use according to claim 53 wherein the macrocyclic lactone is a compound of the formula (I) wherein X is -C(H)(OH)- ; Y is -$C(H_2)$-; R_1 is the radical



R_2 is –CH_3 or C_2H_5, and the bond between atoms 22 and 23 represents a single bond.

55. Use according to claim 49 wherein the endecticide is a macrocyclic lactone is selected from the group consisting of avermectins, milbemycins and derivatives thereof, in free form or in the form of a physiologically acceptable salt.

56. Use according to claim 53 wherein the macrocyclic lactone is selected from the group consisting of Ivermectin, Doramectin, Moxidectin, Selamectin, Emamectin, Eprinomectin, Milbemectin, Abamectin, Milbemycin oxime, Nemadectin, and a derivative thereof, in free form or in the form of a physiologically acceptable salt.

57. Use according to claim 49 comprising an effective amount of a macrocyclic lactone in combination with an effective amount of an anthelmintic selected from the group consisting of Albendazole, Clorsulon, Cydectin, Diethylcarbamazine, Febantel, Fenbendazole, Haloxon, Levamisole, Mebendazole, Morantel, Oxyclozanide, Oxibendazole, Oxfendazole, Oxfendazole, Oxamniquine, Pyrantel, Piperazine, Praziquantel, Thiabendazole, Tetramisole, Trichlorfon, Thiabendazole, and a derivative thereof.

58. Use according to claim 49 comprising in addition to an endo-parasiticide or an endecticide an effective amount of an insecticide, acaricide or an insecticide and an acaricide.

59. Use according to claim 36 comprising an effective amount of milbemycin oxime and praziquantel.

60. Use according to claim 36 comprising an effective amount of lufenuron, praziquantel and milbemycin oxime.

61. Use according to claim 36 comprising an effective amount of cyclosporin.

62. Use according to claim 36 comprising an effective amount of an antimicrobial selected from the group consisting of a penicillin, tetracycline, sulfonamide, cephalosporin, cephamycin, aminoglucosid, trimethoprim, dimetridazole, erythromycin, framycetin, fruazolidone, pleuromutilin, streptomycin and a compound that is active against protozoa.

63. Use according to claim 36 comprising an effective amount of compound that is active against behavioral including separation worry or travel sickness of dogs and cats.

64. Use of a highly palatable ductile chewable veterinary composition of claim 1 in a process of controlling nonhuman animal pests or nonhuman animal pathogens or of curing or preventing nonhuman animals diseases.